

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P558657

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-81-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558657  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FSR-12-1-LD4-1LO-35-UNV-81-84-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

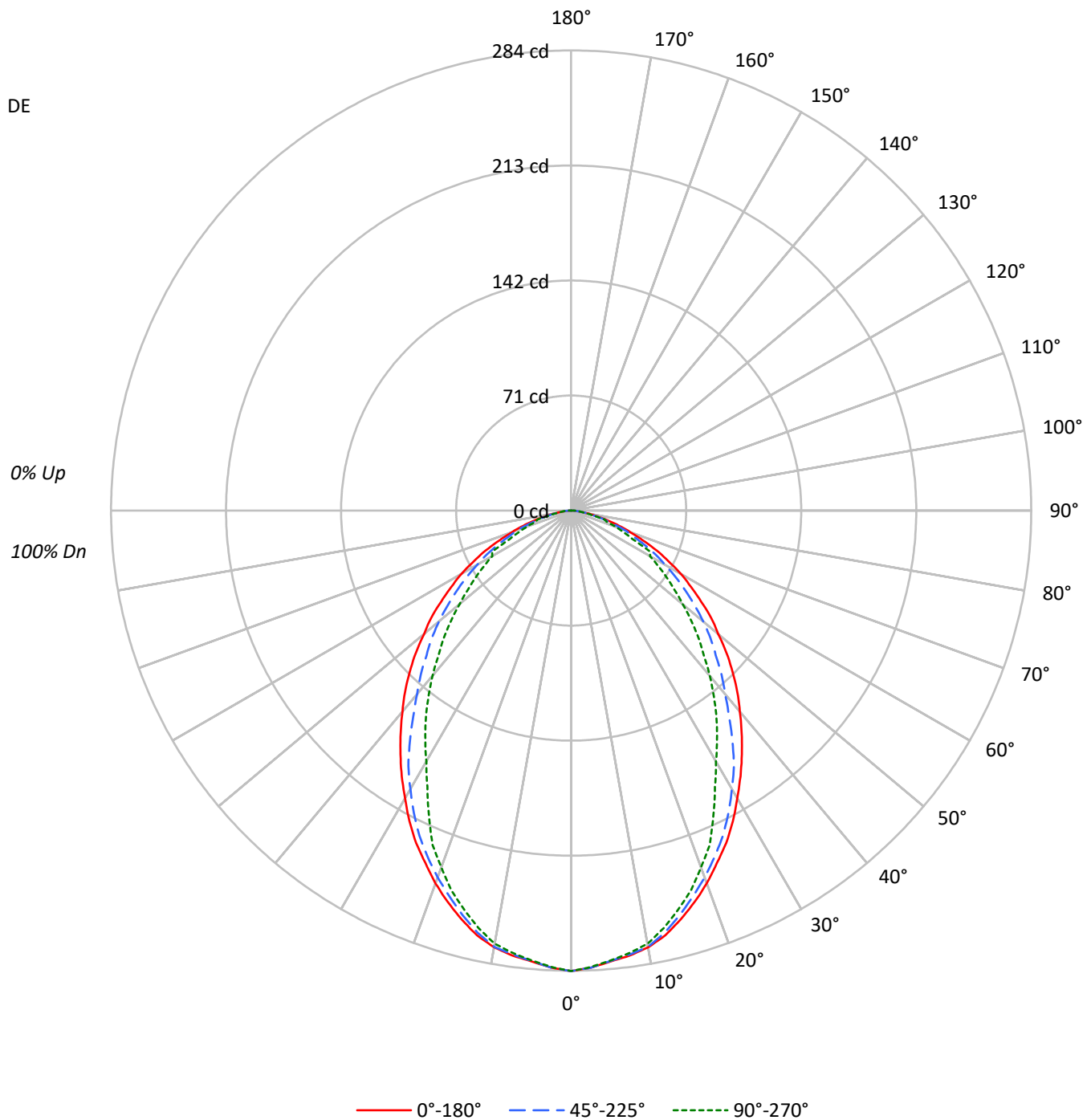
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 558.0 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 5.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3059	3059	3059
5°	3018	3015	3011
10°	2992	2988	2966
15°	2911	2882	2842
20°	2804	2759	2684
25°	2689	2631	2467
30°	2548	2467	2222
35°	2414	2280	2055
40°	2276	2078	1870
45°	2146	1921	1691
50°	1986	1783	1507
55°	1837	1616	1351
60°	1683	1442	1210
65°	1482	1263	1072
70°	1221	1108	910
75°	969	848	890
80°	651	614	570
85°	408	482	568

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2146 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.5	4.7
10°-20°	72.6	13.0
20°-30°	100.5	18.0
30°-40°	107.2	19.2
40°-50°	97.8	17.5
50°-60°	76.6	13.7
60°-70°	49.9	8.9
70°-80°	22.1	4.0
80°-90°	4.7	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	199.6	35.8
0°-40°	306.8	55.0
0°-60°	481.2	86.2
0°-90°	558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	558.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	284	284	284	284	284	
5°	279	279	279	279	279	27
15°	261	261	259	256	255	73
25°	226	225	222	214	208	104
35°	184	182	174	160	156	115
45°	141	138	126	116	111	109
55°	98	95	86	76	72	88
65°	58	55	50	51	42	57
75°	23	22	20	19	21	25
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	284.2	284.2	284.2	284.2	284.2
2.5°	282.3	282.3	282.3	281.9	281.9
5°	279.3	279.0	279.0	278.7	278.7
7.5°	277.0	276.7	276.4	276.0	275.4
10°	273.7	273.7	273.4	271.8	271.4
12.5°	268.5	268.1	266.8	264.5	263.9
15°	261.2	261.2	258.6	256.0	255.0
17.5°	253.3	253.0	249.7	247.1	245.8
20°	244.8	244.1	240.9	236.6	234.3
22.5°	235.3	235.3	231.3	225.7	223.4
25°	226.4	225.1	221.5	213.6	207.7
27.5°	216.2	214.2	210.3	199.1	192.2
30°	205.0	204.1	198.5	184.0	178.8
32.5°	194.5	192.9	187.0	171.9	167.6
35°	183.7	182.4	173.5	160.4	156.4
37.5°	172.8	171.2	160.0	149.5	144.6
40°	162.0	160.0	147.9	138.3	133.1
42.5°	151.8	149.2	137.4	127.2	121.3
45°	141.0	138.0	126.2	115.7	111.1
47.5°	130.1	127.5	116.7	105.8	100.6
50°	118.6	116.3	106.5	95.6	90.0
52.5°	109.1	105.5	96.0	85.1	80.5
55°	97.9	95.0	86.1	75.9	72.0
57.5°	87.7	84.8	76.6	67.0	63.7
60°	78.2	73.9	67.0	58.8	56.2
62.5°	67.7	64.4	58.5	51.6	54.9
65°	58.2	54.9	49.6	50.6	42.1
67.5°	47.6	46.0	41.4	36.8	35.5
70°	38.8	36.8	35.2	30.2	28.9
72.5°	30.9	28.9	26.6	24.0	23.0
75°	23.3	21.7	20.4	19.4	21.4
77.5°	16.1	15.4	14.5	13.5	13.1
80°	10.5	10.2	9.9	9.5	9.2
82.5°	6.2	6.2	6.2	6.2	6.2
85°	3.3	3.6	3.9	4.3	4.6
87.5°	2.0	2.0	2.3	2.6	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)